

CRAMPTON'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, THOMAS RUSSELL CRAMPTON, of 2, Southwark Square, Southwark, in the County of Surrey, Engineer, send greeting.

WHEREAS Her present most Excellent Majesty Queen Victoria, by Her 5 Royal Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Twelfth day of July, One thousand eight hundred and forty-five, in the ninth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Thomas Russell Crampton, my exors, admors, and assigns, Her especial license, full power, sole privilege and 10 authority, that I, the said Thomas Russell Crampton, my exors, admors, and assigns, or such others as I, the said Thomas Russell Crampton, my exors, admors, or assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within 15 England, Wales, and the Town of Berwick-upon-Tweed, and in the Islands of Guernsey, Jersey, Alderney, Sark, and Man, and also in all Her said Majesty's Colonies and Plantations abroad, my Invention of "IMPROVEMENTS IN MATCH BOXES, OR ARTICLES TO BE USED IN THE PRODUCTION OF INSTANTANEOUS LIGHT, AND IN THE MACHINERY FOR MANUFACTURING THE SAME;" in which said 20 Letters Patent is contained a proviso obliging me, the said Thomas Russell Crampton, by an instrument in writing under my hand and seal, to particularly describe and ascertain the nature of my said Invention, and in

Crampton's Improvements in Match Boxes.

what manner the same is to be performed, and to cause the same to be enrolled in Her said Majesty's High Court of Chancery within six calendar months next and immediately after the date of the said in part recited Letters Patent, as in and by the same, reference being had thereunto, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Thomas Russell Crampton, do hereby declare the nature of my said Invention to consist in the construction of boxes for containing matches for producing instantaneous light by means of pressure of a material not hitherto used for such purposes. The mode of carrying out the said Invention will be fully 10 understood by reference to the accompanying Drawing and the following description. The Drawing is made full size, and the same letters and figures of reference indicate the same parts throughout.

In the accompanying Drawing, Figure 1, is represented a vertical section of the mould A, which is of a cylindrical form. B marks a piston or plate 15. accurately fitting the mould or cylinder A. C marks a perforated plate fitting the top of cylinder, as best seen on Plan, Figure 2. D marks a circular disc or plate provided with a number of steel-tapered spikes or pins, one of which is marked f. These spikes or pins correspond in number and diameter to the number of perforations in the plate C, as seen in the Drawing. The operation 20 is as follows:—The plates C and D being removed from the mould or cylinder A, the mould A is charged about two thirds full, more or less, with clay, to form (when pressed) one box. The plate C is attached to the mould A in the manner shewn at Figure 3, or in any other convenient manner; and the plate D, with its spikes, is made to descend through the plate C the 25 required depth into the clay by means of any well-known power, any surplus quantity of clay being at the same time pressed through small holes formed around the circumference of the mould in a line with the letters E, E, Figure 1. The plate D is then withdrawn, after which the plate C is removed, and the piston B is forced up with the clay moulded as required. The small 30 holes F, F, relieve the lower part of the mould A of any clay which might pass the piston B. The clay is then baked in the ordinary manner, and such boxes may be furnished with lids or covers of the ordinary kind. The mateterial which I have hitherto used is that known as potters' clay, but I wish it to be understood that I do not confine myself to the employment of this 35 material, as in some cases cements in a semi-liquid state might be used and operated upon, as before described.

Having described the nature of my Invention, I wish it to be understood that I do not claim the forming boxes for containing matches for producing

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Crampton's Improvements in Match Boxes.

instantaneous light in several compartments, knowing that such has been before carried into effect; but I do claim the making of boxes for containing matches for producing instantaneous light by means of pressure in a mould, as before described, by any well-known mechanical power, such said boxes being formed of clay or cements, or some such like suitable material.

In witness whereof, I, the said T mas Russell Crampton, have hereunto set my hand and seal, this Twefth day of January, One thousand eight hundred and forty-six.

THOMAS RUSSELL (L.S.) CRAMPTON.

10 AND BE IT REMEMBERED, that on the Twelfth day of January, in the year of our Lord 1846, the aforesaid Thomas Russell Crampton came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above written. And also the Specification aforesaid was stamped according 15 to the tenor of the Statute made for that purpose.

Enrolled the Twelfth day of January, in the year of our Lord One thousand eight hundred and forty-six.

LONDON:

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